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C407M-C (10/99) EH2100/EH2100P Ceiling Enclosures

IMPORTANT SAFEGUARDS AND WARNINGS

Prior to installation and use of this product, the following WARNINGS should be observed.

1. Installation and servicing should only be done by qualified service personnel and conform to all local codes.
2. Unless the unit is specifically marked as a NEMA Type 3, 3R, 3S, 4, 4X, 6 or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
3. Use only installation methods and materials capable of supporting four times the combined weight of the enclosure/pan and tilt/camera/lens.
4. Only use replacement parts recommended by Pelco.
5. The camera and lens combination shall not exceed 10 pounds (4.5 kg).

The product and/or manual may bear the following marks:



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

CAUTION:

RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

Please thoroughly familiarize yourself with the information in this manual prior to installation and operation.

DESCRIPTION

The EH2100 and EH2100P are low profile ceiling enclosures designed for mounting in hard or suspended ceilings. Their compact design complements any business or office decor and provides maximum surveillance for fixed CCD camera applications.

The upper section mounted above the ceiling is constructed of aluminum to meet most fire code requirements. The EH2100 has a riveted back box. The EH2100P has a fully welded and sealed back box, which has been found suitable for use in return air-handling plenums by Underwriters Laboratories, Inc.

The EH2100/EH2100P are engineered for ease of installation and service. Because of its light-weight design, the upper section can be mounted directly on a ceiling tile without the use of added support. A clear window provides for a discreet installation.

The lower section is hinged to provide convenient access for adjusting the camera and lens. The adjustable camera mounting sled allows the camera to be positioned vertically or horizontally, depending on the camera size.

Models

EH2100	Low profile ceiling enclosure with riveted back box for use with solid-state CCD cameras; for use in hard or suspended ceiling applications
EH2100P	Same as EH2100 except has fully welded and sealed back box

INSTALLATION

To install the EH2100/EH2100P perform the following steps:

- Determine the location and direction of the enclosure.

HARD CEILING - Cut an opening in the ceiling. Avoid cutting into the ceiling support structure (rafters and joists).

SUSPENDED CEILING - The E2100 rotating mounting plate may be used when installing the EH2100/EH2100P into a suspended ceiling. To install the E2100 follow the instructions supplied with the mounting plate.
- Open the cover of the enclosure to expose the mounting holes in the flange.
- Remove the appropriate knockouts (EH2100 only) needed for camera power and video wiring. The EH2100P must have feedthrough holes drilled in needed locations.
- Insert the enclosure into the opening and secure with the appropriate fasteners. The EH2100P fasteners must meet plenum standards.
- Mount the camera and lens onto the adjustable mounting bracket. Adjust the position of the camera and lens to clear the enclosure cover when closed. Tighten the mounting bracket fasteners.
- Route the appropriate cables into the enclosure. Make all necessary electrical connections. Refer to Table A for the type of video coaxial cable to use. Refer to Table B for 24 VAC wiring distances.
- Close and lock the cover.

NOTE: Flange extenders have been supplied to support the enclosure if adequate mounting support is not available.

Table A. Video Coaxial Cable Requirements

Cable Type*	Maximum Distance
RG59/U	750 ft (229 m)
RG6/U	1,000 ft (305 m)
RG11/U	1,500 ft (457 m)

* Minimum cable requirements:
 75 ohms impedance
 All-copper center conductor
 All-copper braided shield with 95% braid coverage

Table B. 24 VAC Wiring Distances

The following are the recommended maximum distances for 24 VAC applications and are calculated with a 10-percent voltage drop. (Ten percent is generally the maximum allowable voltage drop for AC-powered devices.)

EXAMPLE: An enclosure that requires 80 vA and is installed 35 feet (10 m) from the transformer would require a minimum wire gauge of 20 Awg.

NOTE: Distances are calculated in feet; values in parentheses are meters.

		Wire Gauge					
		20	18	16	14	12	10
Total vA consumed	10	283 (86)	451 (137)	716 (218)	1,142 (348)	1,811 (551)	2,880 (877)
	20	141 (42)	225 (68)	358 (109)	571 (174)	905 (275)	1,440 (438)
	30	94 (28)	150 (45)	238 (72)	380 (115)	603 (183)	960 (292)
	40	70 (21)	112 (34)	179 (54)	285 (86)	452 (137)	720 (219)
	50	56 (17)	90 (27)	143 (43)	228 (69)	362 (110)	576 (175)
	60	47 (14)	75 (22)	119 (36)	190 (57)	301 (91)	480 (146)
	70	40 (12)	64 (19)	102 (31)	163 (49)	258 (78)	411 (125)
	80	35 (10)	56(10)	89 (27)	142 (43)	226 (68)	360 (109)
	90	31 (9)	50 (15)	79 (24)	126 (38)	201 (61)	320 (97)
	100	28 (8)	45 (13)	71 (21)	114 (34)	181 (55)	288 (87)
	110	25 (7)	41 (12)	65 (19)	103 (31)	164 (49)	261 (79)
	120	23 (7)	37 (11)	59 (17)	95 (28)	150 (45)	240 (73)
	130	21 (6)	34 (10)	55 (16)	87(26)	139 (42)	221 (67)
	140	20 (6)	32 (9)	51 (15)	81 (24)	129 (39)	205 (62)
	150	18 (5)	30 (9)	47 (14)	76 (23)	120 (36)	192 (58)
	160	17 (5)	28 (8)	44 (13)	71 (21)	113 (34)	180 (54)
	170	16 (4)	26 (7)	42 (12)	67 (20)	106 (32)	169 (51)
	180	15 (4)	25 (7)	39 (11)	63 (19)	100 (30)	160 (48)
	190	14 (4)	23 (7)	37 (11)	60 (18)	95 (28)	151 (46)
	200	14 (4)	22 (6)	35 (10)	57 (17)	90 (27)	144 (43)

Maximum distance from transformer to load

MAINTENANCE

Regularly scheduled maintenance will prolong the operational life and appearance of the equipment.

Clean the outer surface of the enclosure and the inner surface of the viewing window with a non-abrasive cleaning cloth and antistatic cleaner that is safe for use on acrylic plastic. Do not use kerosene or similar substances that can scratch the surface.

Service Manual

If you need to service your unit, obtain a service manual in one of the following ways:

- Go to Pelco's web site at <ftp://www.pelco.com> and find service manual C407SM.
- Contact Pelco's Literature Department and request service manual C407SM.

SPECIFICATIONS

Mechanical

Camera Mounting: Adjustable camera sled capable of supporting a maximum weight of 10 lb (4.53 kg). Sled can be adjusted horizontally or vertically

Maximum Camera and Lens Size: Accepts camera and lens combinations (including BNC connector) up to 3 (H) x 10 (L) x 4 (W) inches (7.62 x 25.4 x 10.16 cm)

Ceiling Mounting: Upper section flange-mounted to fixed or suspended ceiling. Flange extenders are provided for ceiling support.

Cable Entry: Conduit knockouts, EH2100 only; must be drilled for EH2100P

Lock: Phillips head screw

General

Construction

Upper Section: 5052H32 aluminum

Lower Section: Vacuum-formed ABS plastic (UL listed material)

Viewing Window: Lucite® SAR (Super Abrasion Resistant acrylic)

Color

Upper Section: Alodine

Lower Section: Eggshell white ABS plastic

Environment: Indoor; 32° to 120°F (0° to 49°C)

Weight: 1.75 lb (.79 kg)

Ratings

NEMA 1

(Design and product specifications subject to change without notice.)

WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship for a period of one year after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years on FT/FR8000 Series fiber optic products.
- Three years on Genex® Series products (multiplexers, server, and keyboard).
- Three years on Camclosure® and fixed camera models, except the CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models, which have a five-year warranty.
- Two years on standard motorized or fixed focal length lenses.
- Two years on Legacy®, CM6700/CM6800/CM9700 Series matrix, and DF5/DF8 Series fixed dome products.
- Two years on Spectra®, Esprit®, ExSite™, and PS20 scanners, including when used in continuous motion applications.
- Two years on Esprit® and WW5700 Series window wiper (excluding wiper blades).
- Eighteen months on DX Series digital video recorders, NVR300 Series network video recorders, and Endura™ Series distributed network-based video products. months on DX Series digital video recorders, NVR300 Series network video recorders, Endura™ Series distributed network-based video products, and TW3000 Series twisted pair transmission products.
- One year (except video heads) on video cassette recorders (VCRs). Video heads will be covered for a period of six months.
- Six months on all pan and tilts, scanners or preset lenses used in continuous motion applications (that is, preset scan, tour and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to Pelco, Clovis, California. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental or consequential damages (including loss of use, loss of profit and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

1. Model and serial number
2. Date of shipment, P.O. number, Sales Order number, or Pelco invoice number
3. Details of the defect or problem

If there is a dispute regarding the warranty of a product which does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

In order to expedite parts returned to the factory for repair or credit, please call the factory at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair).

All merchandise returned for credit may be subject to a 20% restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid. Ship to the appropriate address below.

If you are located within the continental U.S., Alaska, Hawaii or Puerto Rico, send goods to:

Service Department
Pelco
3500 Pelco Way
Clovis, CA 93612-5699

If you are located outside the continental U.S., Alaska, Hawaii or Puerto Rico and are instructed to return goods to the USA, you may do one of the following:

If the goods are to be sent by a COURIER SERVICE, send the goods to:

Pelco
3500 Pelco Way
Clovis, CA 93612-5699 USA

If the goods are to be sent by a FREIGHT FORWARDER, send the goods to:

Pelco c/o Expeditors
473 Eccles Avenue
South San Francisco, CA 94080 USA
Phone: 650-737-1700
Fax: 650-737-0933

REVISION HISTORY

Manual #	Date	Comments
C407M		Original manual.
C407M	9/90	Rev. A Added UL certification.
C407M	9/97	Rev. B Added EH2100P model.
C407M-C	10/99	Rev. C. Added instructions for suspended ceiling installation. Moved exploded assembly diagram and parts list to new maintenance/service manual (C407SM). Updated manual to new format.

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